Dataset Tables Summary

April 16, 2018

Col.	Col. Name	Format	Units	Range	Description
1	NODE_ID	int	-	$1 - 960$	Node ID
2	STATE_NAME	str	-	-	State in which node is located
3	NEM_REGION	str	-	-	NEM region in which node is located
4	NEM_ZONE	str	-	-	NEM zone in which nodes is located
5	VOLTAGE_KV	int	kV	$110 - 500$	Node voltage
6	RRN	int	-	$0 - 1$	If 1 node is a RRN, if 0 node is not a RRN
7	PROP_REG_D	float	-	$0 - 0.124$	Proportion of NEM regional demand consumed at node
8	LATITUDE	float	N°	$-42.7 - -16.9$	Latitude (GDA94)
9	LONGITUDE	float	E°	$135.6 - 153.4$	Longitude (GDA94)

Table 1: Network nodes dataset summary (network_nodes.csv)

Col.	Col. Name	Format	Units	Range	Description
1	LINE_ID	str	-	-	Network edge ID
2	NAME	str	-	-	Name of network edge
3	FROM_NODE	int	-	$1 - 960$	Node ID for origin node
4	TO_NODE	int	-	$1 - 960$	Node ID for destination node
5	R_PU	float	p.u.	$6.1 \times 10^{-9} - 4 \times 10^{-4}$	Per-unit resistance
6	X_PU	float	p.u.	$1.5 \times 10^{-5} - 0.83$	Per-unit reactance
7	B_PU	float	p.u.	$3.4 \times 10^{-8} - 4.0 \times 10^{-3}$	Per-unit line charging susceptance
8	NUM_LINES	int	-	$1 - 4$	Number of parallel lines

Table 2: Network edges dataset summary (network_edges.csv)

Col.	Col. Name	Format	Units	Range	Description
1	HVDC_LINK_ID	str	-	-	HVDC link ID
2	FROM_NODE	int	-	$1 - 960$	Node ID of origin node
3	TO_NODE	int	-	$1 - 960$	Node ID of destination node
4	FORWARD_LIMIT_MW	float	MW	$107 - 650$	'From' node to 'To' node power-flow limit
5	REVERSE_LIMIT_MW	float	MW	$210 - 650$	'To' node to 'From' node power-flow limit
6	VOLTAGE_KV	float	kV	$132 - 400$	HVDC link voltage

Table 3: Network HVDC links dataset summary (network_hvdc_links.csv)

Col.	Col. Name	Format	Units	Range	Description
1	INTERCONNECTOR_ID	str	-	-	Interconnector ID
2	FROM_NODE	int	-	$1-960$	Node ID of origin node
3	TO_NODE	int	-	$1-960$	Node ID of destination node
4	FORWARD_LIMIT_MW	float	MW	$300-650$	'From' node to 'To' node power-flow limit
5	REVERSE_LIMIT_MW	float	MW	$650-1078$	'To' node to 'From' node power-flow limit

Table 4: Network interconnectors dataset summary (network_interconnectors.csv)

Col.	Col. Name	Format	Units	Range	Description
1	DUID	string	-	-	Unique ID for each unit
2	STATIONID	string	-	-	ID of station to which DUID belongs
3	STATIONNAME	string	-	-	Name of station to which DUID belongs
4	NEM_REGION	string	-	-	Region in which DUID is located
5	NEM_ZONE	string	-	-	Zone in which DUID is located
6	NODE	int	-	$9-940$	Node to which DUID is assigned
7	FUEL_TYPE	string	-	-	Primary fuel type
8	FUEL_CAT	string	-	-	Primary fuel category
9	EMISSIONS	float	tCO_2/MWh	$0-1.56$	Equivalent CO2 emissions intensity
10	SCHEDULE_TYPE	string	-	-	Schedule type for unit
11	REG_CAP	int	MW	$1-1500$	Registered capacity
12	MIN_GEN	float	MW	$0-347.2$	Minimum dispatchable output
13	RR_STARTUP	float	MW/h	$60-12000$	Ramp-rate for start-up
14	RR_SHUTDOWN	float	MW/h	$40-9999$	Ramp-rate for shut-down
15	RR_UP	float	MW/h	$61.3-10080$	Ramp-rate up when running
16	RR_DOWN	float	MW/h	$88.7-10080$	Ramp-rate down when running
17	MIN_ON_TIME	int	h	$0-16$	Minimum on time
18	MIN_OFF_TIME	int	h	$0-16$	Minimum off time
19	SU_COST_COLD	int	$	$0-260400$	Cold start start-up cost
20	SU_COST_WARM	int	$	$0-29760$	Warm start start-up cost
21	SU_COST_HOT	int	$	$0-89280$	Hot start start-up cost
22	VOM	float	$/MWh	$0-12.5$	Variable operations and maintenance costs
23	HEAT_RATE	float	GJ/MWh	$0-15.7$	Heat rate
24	NL_FUEL_CONS	float	-	$0-0.3$	No-load fuel consumption as a proportion of full load consumption
25	FC_2016-17	float	$/GJ	$0-8.6$	Fuel cost for the year YYYY-YY e.g. 2016-17
26	SRMC_2016-17	float	$/MWh	$0-129.7$	Short-run marginal cost for year YYYY-YY

Table 5: Generator dataset summary (generators.csv)

Col.	Col. Name	Format	Units	Range	Description
1	SETTLEMENTDATE	timestamp	-	1/6/2017 12:30:00 AM - 1/7/2017 12:00:00 AM	Trading interval
2	NSW1	float	MW	6298.7 - 11652.8	New South Wales demand signal
3	QLD1	float	MW	4864.0 - 7728.7	Queensland demand signal
4	SA1	float	MW	1002.9 - 2287.1	South Australia demand signal
5	TAS1	float	MW	921.1 - 1708.7	Tasmania demand signal
6	VIC1	float	MW	3795.8 - 7357.3	Victoria demand signal

Table 6: Regional demand signals (signals_regional_demand.csv)

Col.	Col. Name	Format	Units	Range	Description
1	SETTLEMENTDATE	timestamp	-	1/6/2017 12:30:00 AM - 1/7/2017 12:00:00 AM	Trading interval
2-265	(DUID)	float	MW	-	DUID dispatch profile

Table 7: DUID dispatch profiles (signals_dispatch.csv)